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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
LIANG, REGINA

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	**Application No.** 10/680,202	**Applicant(s)** HONG ET AL.
	Examiner Regina Liang	**Art Unit** 2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-21,23-32 and 34-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-21,23-32 and 34-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *8/7/06*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to amendment filed 9/26/06. Claims 1-12, 14-21, 23-32, 34-41 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claims 9 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is confusing since parent claim 1 recites the second electrode is formed at a corner and claim 9 recites the second electrode is formed at one side, therefore claim 9 contradicts claim 1.

Claim 29 contains the same problem as claim 9.

Claim Rejections - 35 USC § 103

4. Claims 1, 2, 4, 6, 7, 9-11, 14, 15, 17, 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide et al (US 6,587,097 hereinafter Aufderheide) in view of Yoshikawa et al (US 2003/0067449 hereinafter Yoshikawa).

As to claim 1, Figs. 1-3 of Aufderheide discloses a touch panel comprising a supporting substrate (30); a first transparent conductive layer (44, col. 3, lines 6-8) having a first electrode (46b) for applying a voltage; a second transparent conductive layer (42) facing the first transparent conductive layer; an adhesive (40) between the first and second transparent conductive layer (44, 42); and a passivation film (20) on an outer surface of the second transparent conductive layer.

Aufderheide does not disclose the second transparent conductive layer having a second electrode, the second electrode connected to an external ground voltage or a metal shielding plate. However, Fig. 1 of Yoshikawa teaches a touch panel input device having a transparent conductive layer (6), an electrode (X ground side leader electrode 8b) on the inner surface of the transparent conductive layer (6) and connected to an external ground voltage ([0064]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the second transparent conductive layer of Aufderheide to have a ground electrode (second electrode) as taught by Yoshikawa since this is used to form a constant electric potential gradient across the second transparent conductive layer so as to detect the pressed position on the touch panel ([0084] of Yoshikawa).

Yoshikawa teaches the second electrode (X ground side electrode 8b) is printed on one edge of second transparent conductor layer (6). Aufderheide as modified by Yoshikawa does not disclose the second electrode formed at a corner of the second transparent conductive layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Aufderheide as modified by Yoshikawa to have the second electrode formed at a corner of the second transparent conductive layer, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

As to claim 2, Figs. 1, 3 of Aufderheide teaches a plurality of dot spacers (76) formed at fixed intervals on the first transparent conductive layer.

As to claim 4, Fig. 1 of Aufderheide teaches the adhesive (40) is formed along a circumference of the first and second transparent conductive layers (44, 42).

As to claims 6, 7, Aufderheide teaches the supporting substrate includes a glass or a transparent film (col. 3, lines 58-60).

As to claim 9, Yoshikawa teaches the second electrode (X ground side leader electrode 8b) is metal (silver) and is formed at one side of the second transparent conductive layer ([0064]).

As to claims 10, 11, Aufderheide teaches the passivation film is formed of a plastic material or is a Polyethylene Terephtalate film (col. 3, lines 58-60).

Claims 14, 15, 17, 18, 20, which are method claims corresponding to the above apparatus claims 1, 2, 4, 6, 7, 10, 11, are rejected for the same reasons as stated above since such method "steps" are clearly read on by the corresponding "means".

5. Claims 3, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide and Yoshikawa as applied to claims 1, 14 above, and further in view of Schulz et al (US. 2002/0149572 hereinafter Schulz).

Aufderheide as modified by Yoshikawa does not disclose a transparent conductive layer formed below the supporting substrate. However, Schulz teaches a touch panel having a shielding layer of conductive material (conductive layer) formed below a supporting substrate ([0066]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touch panel of Aufderheide as modified by Yoshikawa to have a shielding layer formed below the support substrate as taught by Schulz in order to “enhance the signal-to-noise ratio when using touch sensor on a display transmitting a large degree of noise" ([0066] of Schulz).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide and Yoshikawa as applied to claim 1 above, and further in view of Nakanishi et al (US 2004/0017363).

Aufderheide as modified by Yoshikawa does not disclose the adhesive includes an insulating material. However, Fig. 1 of Nakanishi teaches a touch panel including an adhesive (26) which includes an insulating material ([0031]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the adhesive of Aufderheide as modified by Yoshikawa to include an insulating material as taught by Nakanishi so as to improve operational efficiency.

7. Claims 8, 12, 19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide and Yoshikawa as applied to claims 1 and 14 above, and further in view of applicant's admitted prior art (Figs. 2-4, sections [0003]-[0010] of the specification).

As to claims 8, 19, Aufderheide as modified by Yoshikawa does not disclose the first electrode is a metal and is formed at each of four corners of the first transparent conductive layer. However, Figs. 2, 3 of the admitted prior art teaches a touch panel have a first electrode (2a-2d) is a metal and is formed at each of four corners of a first transparent conductive layer (1). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touch panel of Aufderheide as modified by Yoshikawa to have the first electrode as taught by the admitted prior art for providing electrical connection and for supplying a voltage to the transparent conductive layer.

As to claims 12, 21, Fig. 4 of the admitted prior art teaches a current sensor (20) connected to the first electrode.

8. Claims 23-25, 27, 29-31, 34, 35, 37, 38, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide and Yoshikawa, and further in view of Golgan et al (US. 6,483,498 hereinafter Golgan).

As to claim 23, note the discussion of claim 1 above. Furthermore, Aufderheide teaches a display panel integrated with the touch panel. Yoshikawa teaches a display panel comprising a LCD panel (lines 4 in [0005]). Aufderheide as modified by Yoshikawa does not explicitly disclose the LCD panel comprising a first substrate, a second substrate, and a liquid crystal layer.

However, Golgan teaches a LCD with integrated touch panel comprising a LCD device provided on the second surface of the supporting substrate of the touch panel, and LCD device comprising a first substrate (8) having a TFTs (5), a second substrate having a color filter (col. 4, lines 48-50), and a liquid crystal layer (12) between the first and second substrates. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touch panel device of Aufderheide as modified by Yoshikawa to have a LCD panel integrated with the touch panel as taught by Golgan so as to provide an integrated resistive touch sensor for LCDs which is light weight and compact (col. 2, lines 60-61 of Golgan).

As to claim 24, Figs. 1, 3 of Aufderheide teaches a plurality of dot spacers (76) formed at fixed intervals on the first transparent conductive layer.

As to claim 25, Fig. 1 of Aufderheide teaches the adhesive (40) is formed along a circumference of the first and second transparent conductive layers (44, 42).

As to claim 27, Aufderheide teaches the supporting substrate includes a glass or a transparent film (col. 3, lines 58-60).

As to claim 29, Yoshikawa teaches the second electrode (X ground side leader electrode 8b) is metal (silver) and is formed at one side of the second transparent conductive layer ([0064]).

As to claims 30, 31, Aufderheide teaches the passivation film is formed of a plastic material or is a Polyethylene Terephtalate film (col. 3, lines 58-60).

Claims 34, 35, 37, 38, 40, which are method claims corresponding to the above apparatus claims 23-25, 27, 30, 31, are rejected for the same reasons as stated above since such method "steps" are clearly read on by the corresponding "means".

9. Claim 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide, Yoshikawa and Golgan as applied to claim 34 above, and further in view of Schulz.

Aufderheide as modified by Yoshikada and Golgan does not disclose a transparent conductive layer formed below the supporting substrate. However, Schulz teaches a touch panel having a shielding layer of conductive material (conductive layer) formed below a supporting substrate ([0066]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touch panel of Aufderheide as modified by Yoshikawa and Golgan to have a shielding layer formed below the support substrate as taught by

Schulz in order to "enhance the signal-to-noise ratio when using touch sensor on a display transmitting a large degree of noise" ([0066] of Schulz).

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide, Yoshikawa and Golgan as applied to claim 25 above, and further in view of Nakanishi.

Aufderheide as modified by Yoshikawa Golgan does not disclose the adhesive includes an insulating material. However, Fig. 1 of Nakanishi teaches a touch panel including an adhesive (26) which includes an insulating material ([0031]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the adhesive of Aufderheide as modified by Yoshikawa and Golgan to include an insulating material as taught by Nakanishi so as to improve operational efficiency.

11. Claims 28, 32, 39, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide, Yoshikawa and Golgan as applied to 23, 34 above, and further in view of applicant's admitted prior art.

As to claims 28, 39, Aufderheide as modified by Yoshikada and Golgan does not disclose the first electrode is a metal and is formed at each of four corners of the first transparent conductive layer. However, Figs. 2, 3 of the admitted prior art teaches a touch panel have a first electrode (2a-2d) is a metal and is formed at each of four corners of a first transparent conductive layer (1). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the touch panel of Aufderheide as modified by Yoshikawa and

Golgan to have the first electrode as taught by the admitted prior art for providing electrical connection and for supplying a voltage to the transparent conductive layer.

As to claims 32, 41, Fig. 4 of the admitted prior art teaches a current sensor (20) connected to the first electrode.

Response to Arguments

12. Applicant's arguments with respect to claims 1-12, 14-21, 23-32, 34-41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Regina Liang
Primary Examiner
Art Unit 2674

11/1/06